In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-51 (cancelled).

52. (New) A system including a substantially sealed, substantially airtight cabinet sized for housing a vertical array of heat-producing units, the cabinet having an exterior shell and the system including an interior divider wall disposed inside the cabinet, the shell and divider wall providing an equipment chamber adapted to support the array such that the array cooperates with the shell and divider wall in use to define a first plenum, the first plenum having a first inlet defined by the divider wall for receiving a flow of cooling gas and having a first outlet defined by a plurality of openings through the array whereby the first plenum communicates with the openings in use to exhaust substantially all of the flow of cooling fluid through the openings and hence through the array, wherein the divider wall is configured to allow the first inlet to admit the gas to the first plenum in a substantially horizontal direction.

53. (New) The system of claim 52 wherein the divider wall is configured such that the first inlet will admit the gas over a substantial vertical length of the cabinet.

54. (New) The system of claim 52 wherein the divider wall is configured such that the first inlet will admit the gas substantially uniformly over a vertical length of the first inlet.

55. (New) The system of claim 54 wherein the first inlet is at least one substantially vertical slot beside the first plenum.

56. (New) The system of claim 54 wherein the first inlet extends substantially a full vertical extent of at least one of the array and the first plenum.

57. (New) The system of claim 52 wherein a second plenum is defined between the chamber shell and the array for receiving the flow of gas that has passed through the array, the second plenum having a second inlet defined by a second plurality of openings through the array,

and a second outlet defined by the divider wall such that the gas is directed horizontally from the equipment chamber.

58. (New) The system of claim 52 further comprising a mechanism configured to re-circulate the gas through the first inlet after flowing through the array and to cool the gas before the gas re-circulates through the first inlet, the mechanism disposed and configured such that the gas flows substantially horizontally during the entire circulation of the gas.

59. (New) The system of claim 58 wherein the cabinet shell and divider wall are configured to direct the gas to the mechanism for cooling and impelling the gas.

60. (New) The system of claim 59 wherein the mechanism includes at least one heat exchanger and at least one impeller.

61. (New) The system of claim 60 wherein the heat exchanger is upstream of the impeller.

62. (New) The system of claim 60 wherein the heat exchanger is downstream of the impeller.

63. (New) The system of claim 60 wherein the mechanism includes a plurality of impellers disposed in a substantially vertical array.

64. (New) The system of claim 60 wherein each impeller is associated with a non-return valve that closes in the event of failure of that impeller.

65. (New) The system of claim 60 wherein at least a first heat exchanger of the at least one heat exchanger is a module replaceable during use of the array and system.

66. (New) The system of claim 65 wherein the first heat exchanger is mounted to the cabinet on runners configured to support the first heat exchanger when the first heat exchanger is withdrawn from the cabinet.

67. (New) The system of claim 60 wherein at least a second heat exchanger of the at least one heat is coupled to coolant supply ducts by dry-break connectors.

68. (New) The system of claim 58 wherein the mechanism is disposed in a mechanism chamber defined by the cabinet shell and the divider wall, and the equipment chamber and the mechanism are configured to circulate the gas between the mechanism chamber and the equipment chamber.

69. (New) The system of claim 68 wherein the general flow of the gas is substantially horizontal throughout the circulation.

70. (New) The system of claim 69 wherein the flow of the gas through the equipment chamber is substantially parallel to and opposed to the flow of the gas through the mechanism chamber.

71. (New) The system of claim 68 wherein the cabinet includes at least one door configured to provide access to the mechanism chamber independently of access to the equipment chamber.

72. (New) The system of claim 71 wherein the at least one door is a plurality of doors that have independent locks each capable of permitting access to only one of the equipment and the mechanism chambers.

73. (New) The system of claim 72 wherein the door provide substantially vertically upright walls of the cabinet.

74. (New) The system of claim 52 further including heat transfer means disposed in the cabinet for carrying heat away from the cabinet.

75. (New) The system of claim 52 further comprising a door configured to provide selective access to the heat-producing units based on at least one of an environmental

compatibility inside and outside the cabinet, and whether an outer enclosure around the cabinet is closed.

76. (New) The system of claim 52 further comprising an outer enclosure disposed around a substantial portion of the cabinet.

77. (New) The system of claim 76 further comprising an air conditioner disposed and configured to control at least one of temperature and humidity of air between the cabinet and the outer enclosure.

78. (New) The system of claim 76 wherein the outer enclosure includes external panels displaced from walls of the outer enclosure.

79. (New) A method of cooling an array of heat-producing units housed in a cabinet, the method comprising:

substantially preventing gas from entering the cabinet from outside of the cabinet;

directing a flow of cooling gas into a plenum in a first chamber defined by the cabinet from a second chamber defined by the cabinet, the plenum communicating with openings in the array; and

confining the flow of cooling gas such that substantially all of the flow of cooling gas passes from the plenum through the openings;

wherein the cooling gas enters the plenum from the second chamber substantially horizontally.

80. (New) The method of claim 79 further comprising directing the flow of gas horizontally across the plenum across fronts of the heat-producing units side to side as opposed to bottom to top.

81. (New) The method of claim 79 further comprising distributing the flow of gas substantially proportionally among the openings.

82. (New) The method of claim 79 wherein the flow of gas into the openings is transverse to the direction of the flow of gas through the plenum.

83. (New) The method of claim 82 wherein directions of the flow of gas through the plenum and the flow of gas through the openings are generally horizontal.

84. (New) The method of claim 79 wherein the gas is directed into the plenum over a flow height that is at least substantially an entire height of the array.

85. (New) The method of claim 84 wherein the gas is directed at a substantially uniform rate from top to bottom of the flow height.

86. (New) The method of claim 79 further comprising recirculating the gas within the cabinet such that the gas that has passed through the array will circulate back to the plenum to pass through the array again.

87. (New) The method of claim 86 wherein the general flow of the gas is substantially horizontal throughout the recirculating.

88. (New) The method of claim 79 further comprising inhibiting access to the heat-producing units depending upon environmental compatibility inside and outside the cabinet.

89. (New) The method of claim 79 further comprising inhibiting access to the heat-producing units depending upon whether an outer enclosure around the cabinet is closed.

90. (New) A data center system for housing and cooling rack-mounted electronic heat-producing equipment, the system comprising:

a cabinet configured to house the rack-mounted electronic heat-producing equipment and configured to provide a first chamber and a second chamber within the cabinet, the first chamber being configured to house the electronic equipment in an equipment rack, the first and second chambers being in fluid communication with each other and displaced horizontally with respect to each other; and

cooling and circulating means for drawing in heated gas from the first chamber to the

second chamber, cooling the drawn-in gas to produce cooled gas, and impelling the cooled gas from the second chamber horizontally into the first chamber.

91. (New) The system of claim 90 wherein the cabinet defines first and second passages between the first and second chambers to provide the fluid communication between the chambers, the first and second passages being horizontally in line with both the cooling means and the electronic equipment.

92. (New) The system of claim 91 wherein the first and second passages extend along a substantial portion of a height of the cabinet.

93. (New) The system of claim 90 wherein the cooling means comprises a plurality of fans displaced vertically with respect to each other and arranged to draw in and direct gas substantially horizontally.

94. (New) The system of claim 90 wherein the cooling and circulating means includes a heat exchanger cartridge configured to be removed from the system without turning off the electronic equipment.

95. (New) The system of claim 90 wherein the cooling and circulating means includes a heat exchanger cartridge coupled to at least one coolant supply duct through at least one dry-break connector.

96. (New) The system of claim 90 wherein the cooling means is for horizontally drawing in heated gas from the first chamber to the second chamber.